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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Detlef Ullmann

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BARNES & THORNBURG LLP  
750-17TH STREET NW  
SUITE 900  
WASHINGTON, DC 20006-4675

EXAMINER

COOLEY, CHARLES E

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

06/24/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vrobertson@btlaw.com  
DocketingPAT-DC@btlaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,654	<b>Applicant(s)</b> ULLMANN ET AL.	
	<b>Examiner</b> Charles E. Cooley	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20100301; 20100325</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **FINAL OFFICE ACTION**

1. **This application remains assigned to Technology Center 1700, Art Unit 1797 and the following will apply for this application:**

Please direct all written correspondence with the correct application serial number for this application to **Art Unit 1797**.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimiles should be transmitted to the centralized fax receiving number 571-273-8300.

### ***Priority***

2. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All of the CERTIFIED copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

### ***Claim Rejections - 35 U.S.C. § 112, first paragraph***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1797

4. The specification is objected to under 35 U.S.C. § 112, first paragraph as failing to adequately teach how to make and/or use the invention, i.e., failing to provide an enabling disclosure.

5. The first paragraph of 35 U.S.C. 112 requires that the “specification shall contain a written description of the invention.” This requirement is separate and distinct from the enablement requirement. See, e.g., *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1560, 19 USPQ2d 1111, 1114 (Fed. Cir. 1991). See also *Univ. of Rochester v. G.D. Searle & Co.*, 358 F.3d 916, 920-23, 69 USPQ2d 1886, 1890-93 (Fed. Cir.2004) (discussing history and purpose of the written description requirement); *In re Curtis*, 354 F.3d 1347, 1357, 69 USPQ2d 1274, 1282 (Fed. Cir. 2004) (“conclusive evidence of a claim’s enablement is not equally conclusive of that claim’s satisfactory written description”). The written description requirement has several policy objectives. “[T]he essential goal’ of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed.” *In re Barker*, 559 F.2d 588, 592 n.4, 194 USPQ 470, 473 n.4 (CCPA 1977). Another objective is to put the public in possession of what the applicant claims as the invention. See *Regents of the University of California v. Eli Lilly*, 119 F.3d 1559, 1566, 43 USPQ2d 1398, 1404 (Fed. Cir. 1997), cert. denied, 523 U.S. 1089 (1998). “The written description requirement implements the principle that a patent must describe the technology that is sought to be patented; the requirement serves both to satisfy the inventor ’s obligation to disclose the technologic knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the invention that is

Art Unit: 1797

claimed." *Capon v. Eshhar*, 418 F.3d 1349, 1357, 76 USPQ2d 1078, 1084 (Fed. Cir. 2005). Further, the written description requirement promotes the progress of the useful arts by ensuring that patentees adequately describe their inventions in their patent specifications in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. See, e.g., *Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319, 66 USPQ2d 1429, 1438 (Fed. Cir. 2003); *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d at 1563, 19 USPQ2d at 1116. However, a showing of possession alone does not cure the lack of a written description. *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 969-70, 63 USPQ2d 1609, 1617 (Fed. Cir. 2002).

With regard to the 112, 1<sup>st</sup> rejection, the examiner notes the newly filed claims are limited to a diffusion based surface treatment. However, this treatment is described in a general and non-enabling manner, namely "it is also possible for the separator discs to include a material into which, at least in sections, another material is diffused, which changes the surface energy in comparison to the first material. For example, this can be done by a method similar to surface-treating methods of the semiconductor technology, for example, by a plasma jet or the like." *Specification at ¶ [0009]* or "[i]nstead of being generated by surfaces coatings, a changing of surface energy can also be generated by other types of treatment, such as by diffusing another material into

Art Unit: 1797

the material of the separator discs.” *Specification at ¶ [00017]*. The particular surface-treating methods of the semiconductor technology that the specification alludes to are not described other than “by a plasma jet or the like” which fails to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention. It is unknown what surface treatments are included or excluded by this diffusion treatment and the manner in which said treatments are applied to the discs. Since plasma jet technology has many versions and nuances itself and “or the like” utterly fails to describe the surface treatment process, the specification fails to clearly convey the information that applicant has invented the subject matter which is claimed and does not adequately describe the technology that is sought to be patented. Therefore, the description of the diffusion surface treatment is not comprehensive enough and not described in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same. The typical and customary response that one skilled in the art would inherently know how to provide such a treatment in the context of this particular invention, without supporting and compelling evidence supporting such a assertion, will not suffice.

6. Newly filed claims 13-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

***Claim Rejections - 35 U.S.C. § 112, second paragraph***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Newly filed claims 13-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The second paragraph of 35 U.S.C. § 112 requires a claim to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Under *In re Hammack*, 427 F.2d 1378, 166 USPQ 204 (CCPA 1970) and *In re Moore*, 169 USPQ 236 (CCPA 1971), claims must be analyzed to determine their metes and bounds so that it is clear from the claim language what subject matter the claims encompass. This analysis must be performed in light of the applicable prior art and the disclosure. The definiteness of the claims is important to allow others who wish to enter the market place to ascertain the boundaries of protection that are provided by the claims. *Ex parte Kristensen*, 10 USPQ 2d 1701, 1703 (BPAI 1989).

One of the purposes of 35 U.S.C. § 112, second paragraph, “is to provide those who would endeavor, in future enterprise, to approach the area circumscribed by the claims of a patent, with adequate notice demanded by due process of law, so that they may more readily and accurately determine the boundaries of protection involved and evaluate the possibility of infringement and dominance.” *In re Hammack*, supra. As set

Art Unit: 1797

forth in *Amgen Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217, 18

USPQ2d 1016, 1030 (Fed. Cir. 1991).

The statute requires that “[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” A decision as to whether a claim is invalid under this provision requires a determination whether those skilled in the art would understand what is claimed. See *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 624, 225 USPQ 634, 641 (Fed. Cir. 1985) (claims must “reasonably apprise those skilled in the art” as to their scope and be “as precise as the subject matter permits.”).

9. The pending claims fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention and are therefore of indeterminate scope for the following reasons:

The claims are of indeterminate scope since it is unclear what structure is included or excluded by “surface energy”. Thus, the resultant structural configuration of the discs is unidentified.

Claims 16 and 23 are indefinite since they claim the invention in terms of an unspecified variable, namely a surface energy of one of the phases to be separated. Accordingly, the scope of these claims cannot be ascertained.

Claim 20 is indefinite since it claims the invention in terms of an unspecified variable, namely a separating zone of the separator.

Claim 29, line 1: “the separation effect” lacks antecedent basis; in line 6, “the separator effect” lacks antecedent basis.



***Claim Rejections - 35 USC § 102***

10. The terms used in this respect are given their broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art, in light of the written description in the specification, including the drawings, without reading into the claim any disclosed limitation or particular embodiment. See, e.g., *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004); *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22 (Fed. Cir. 1989).

The Examiner interprets claims as broadly as reasonable in view of the specification, but does not read limitations from the specification into a claim. *Elekta Instr. S.A.v.O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1307 (Fed. Cir. 2000). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. Inc. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**12. Newly filed claims 13, 24, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Giesler et al. (US 6,946,096).**

The patent to Giesler et al. disclose a disc 100 including first and second opposed surfaces as seen in the Figure, the first surface including a first material 102 having a surface energy and into which first surface, at least in sections, a second material 104 is diffused by a surface treatment, which diffusion changes the surface energy of the sections of the first surface of the disc (col. 3, lines 1-17; col. 3, line 43 – col. 4, line 46 with diffusion taught at col. 3, lines 59-62); wherein the first material 102 includes high-grade steel (col. 3, lines 3-4 and 60-62; col. 5, lines 1-12; col. 6, lines 40-65; col. 7, lines 28-33; and claim 2) and the second material includes a ceramic material (col. 5, lines 13-60).

A method is disclosed comprising providing a disc 100 including first and second opposed surfaces as seen in the Figure, the first surface including a first material 102 having a surface energy; and diffusing a second material 104 into sections of the first surface 102, which diffusion changes the surface energy of the sections of the first surface (col. 3, lines 1-17; col. 3, line 43 – col. 4, line 46 with diffusion taught at least at col. 3, lines 59-62).

The use of the disc as a separator disc is noted, however, such an intended use has not been afforded any patentable weight because it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647; *In re Sebald*, 122 USPQ 527; *In re Lemin et al.*, 140 USPQ 273; *In re Sinex*, 135 USPQ 302; *In re Pearson*, 181 USPQ 641.

***Claim Rejections - 35 USC § 103***

13. To determine whether subject matter would have been obvious, "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved .... Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented."

*Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966).

The Supreme Court has noted:

Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

*KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1740-41 (2007). "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." (Id. at 1742).

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1797

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**16. Newly filed claims 13-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kjellgren (US 3,741,467) in view of Giesler et al. (US 6,946,096).**

The patent to Kjellgren discloses a centrifuge (Fig. 1) with a drum 1, 2 and a disc stack 15 arranged in the drum; the separator discs being steel discs 15 having first and second opposed surfaces (Fig. 2), the first surface including a first material 15 having a surface energy and having a surface treatment 32 that changes the surface energy of the sections of the first surface of the separator discs 15; the separator discs 15 are completely surface-treated at 32 on both the first and second surfaces of the separator discs as seen in Fig. 2; wherein the surface treatment 32 is adapted to a surface energy of one of a light and a heavy phase to be separated in the separator (col. 1, lines 19-51); wherein the first material includes high-grade steel (col. 1, lines 45-49); wherein different surface treatments changing the surface energy are carried out on the first and second surfaces of the separating discs, wherein the different surface treatments are carried out radially inside and outside a separating zone of the separator, wherein the

Art Unit: 1797

different surface treatments are carried out on the separator discs radially inside and outside a rising duct (proximate 16 in Fig. 1) of the separator, wherein the sections comprise less than a total area of the first surface of the separator disc, and wherein the separator discs are surface-treated in sections and the sections comprise less than a total area of the separator discs since the surface treatment may be “applied to the surface of any of the parts. . . or to the internal surface of the rotor body 1 and its cover, and it may be applied to all of the these surfaces” – col. 2, lines 21-25; wherein the separator disc 15 is completely surface-treated at 32 on both the first and second surfaces of the discs (Fig. 2).

Also disclosed is a method of increasing the separation effect of a separator disc, the method steps comprising: providing a separator disc 15 including first and second opposed surfaces (Fig. 2), the first surface including a first material (steel) having a surface energy; and applying a second material 32 into sections of the first surface, which changes the surface energy of the sections of the first surface thereby increasing the separator effect of the separator disc along the sections of the first surface (col. 1, line 44 – col. 2, line 1).

The patent to Kjellgren does not disclose the second material being diffused into the first material, wherein the second material includes a ceramic material, wherein different materials are diffused into different sections of the separating discs, and wherein the surface treatment includes different second materials that are diffused into different sections of the separating disc.

The patent to Giesler et al. disclose a disc 100 including first and second opposed surfaces as seen in the Figure, the first surface including a first material 102 having a surface energy and into which first surface, at least in sections, a second material 104 is diffused by a surface treatment, which diffusion changes the surface energy of the sections of the first surface of the disc (col. 3, lines 1-17; col. 3, line 43 – col. 4, line 46 with diffusion taught at col. 3, lines 59-62); wherein the first material 102 includes high-grade steel (col. 3, lines 3-4 and 60-62; col. 5, lines 1-12; col. 6, lines 40-65; col. 7, lines 28-33; and claim 2) and the second material includes a ceramic material (col. 5, lines 13-60); wherein different materials are diffused into different sections of the disc 100 and wherein the surface treatment includes different second materials that are diffused into different sections of the disc 100 (col. 5, lines 13-60).

It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have substituted the disc treatment of Kjellgren with the diffusion treatment applied to the disc of Giesler et al. for the purposes of imparting superior attributes to the disc such as hardness and stiffness, strength and oxidation-resistance at elevated temperatures, high thermal conductivity, low coefficient of thermal expansion, and resistance to wear and abrasion (col. 1, lines 60-66).

Although considered met by the prior art, the product-by-process limitations (i.e., the manner in which the disc is formed/surface treated: claims 15, 18-23, 25-26, and 28) do not impart patentability to the claims per MPEP 2113.

***Response to Amendment***

17. Applicant's arguments with respect to the pending claims have been considered but are deemed to be moot in view of the new grounds of rejection necessitated by amendment.

As noted during the interview of 15 DEC 2009, the examiner expressed serious concerns not adequately addressed by Applicant regarding the surface treatment by diffusion based upon the lack of disclosure and uncertainty regarding the resultant structure derived from such a diffusion treatment. However, since Applicant has chosen to file a new set of claims restricted to the surface treatment by diffusion (as opposed to treatment by applying a coating, clearly taught by Kjellgren as set forth in the first office action), the above rejections are clearly mandated and considered proper. Applicant's *general* statement in the remarks that the "sufficient structure for a diffused separator disc is disclosed" is not supported by the paucity of disclosure relating to the surface treatment by diffusion. Nevertheless, the new reference to Giesler et al. (found in a new search mandated by amendment) teaches a disc composed of a wide variety of ceramic materials diffused into a steel substrate/base layer for the purposes of imparting superior attributes to the disc. Such a diffusion treatment taught by Giesler et al. imparts various characteristics and properties not found in the base steel substrate, thereby necessarily altering the "surface energy" of the substrate (whatever that is).

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure by disclosing ceramic materials diffused into a base substrate.

19. Applicant's amendment necessitated the new grounds of rejection. Accordingly,

**THIS ACTION IS MADE FINAL.** See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION. ANY RESPONSE FILED AFTER THE MAILING DATE OF THIS FINAL REJECTION WILL BE SUBJECT TO THE PROVISIONS OF MPEP 714.12 AND 714.13.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley in Art Unit 1797 whose telephone number is (571) 272-1139. The examiner can normally be reached on Monday - Friday.



Art Unit: 1797

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Additional assistance can be obtained via the Ombudsman Pilot Program is designed to enhance the USPTO's ability to assist applicants and/or their representatives with issues that arise during patent application prosecution. More specifically, if there is a breakdown in the normal prosecution process, the Ombudsman Pilot Program can assist in getting the process back on track. See <http://www.uspto.gov/patents/ombudsman.jsp> . If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/563,654  
Art Unit: 1797

Page 17

/Charles E. Cooley/

Charles E. Cooley  
Primary Examiner  
Art Unit 1797

22 June 2010